

Mr. Clay E. Jackson
Textron Fastening Systems, PSD Operations
P. O. Box 660
Logansport, IN 46947

Re: 017-16162
First Minor Permit Revision to
FESOP 017-11464-00027

Dear Mr. Jackson:

Textron Fastening Systems, PSD Operations was issued a FESOP on September 4, 2002, for a stationary metal stamping operation including electroplating, surface coating, and heat treating of metal parts. A letter requesting changes to this permit was received on September 26, 2002. The changes are related to the addition of the following emission units:

- (a) Three (3) wheelabrator abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, each with a maximum capacity of processing 2100 pounds per hour, equipped with a common dust collector with a 99% control efficiency, and a design outlet grain loading of 0.03 grains per actual standard cubic feet, with a maximum air flow rate of 4500 actual cubic feet per minute.

The source also requested the addition of the following insignificant emission units:

- (b) Two (2) vinyl dip coating units, identified as EU-7a and EU-7b, using water based primer and plastisol coatings, with a maximum throughput capacity of 3000 units per hour, equipped with one (1) natural gas-fired dryer, rated at 1 mmBtu per hour, and one (1) natural gas-fired infrared heater, rated at 0.5 mmBTu per hour,

According to 326 IAC 2-8-11.1(d)(5)(C), a minor permit revision can be used for "modifications for which the potential to emit is limited to less than twenty-five (25) tons per year of any regulated pollutant" by complying with the following constraints: "Using a particulate air pollution control device as follows: (i) Achieving and maintaining ninety-nine (99%) efficiency. (ii) Complying with a no visible emission standard. (iii) The potential to emit before air pollution controls does not exceed major source thresholds for federal permitting programs. (iv) Certifying to the commissioner that the air pollution control device supplier guarantees that a specific outlet concentration, in conjunction with design air flow, will result in actual emissions less than twenty-five (25) tons of particulate matter (PM) or fifteen (15) tons per year or less of particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10)". The requested modifications meet the above requirements, therefore, pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Madhurima Moulik, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Madhurima Moulik or extension 3-0868, or dial (317) 233-0868.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

mm

cc: File - Cass County
U.S. EPA, Region V
Cass County Health Department
Air Compliance Section Inspector - Dave Rice
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

**Textron Fastening Systems, PSD Operations
800 West County Road 250 South
Logansport, Indiana 46947**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F017-11464-00027	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 4, 2002 Expiration Date: September 4, 2007

1 st Minor Permit Revision No.: 017-16162	Pages Modified: 3, 4, 6, 26, 27, 27a, 27b
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS

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Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8][326 IAC 8-2-9]
- D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.4 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs)
- D.1.5 VOC Emissions and HAP Emissions

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.6 Record Keeping Requirements
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Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

SECTION D.3 FACILITY OPERATION CONDITIONS

Three (3) Wheelabrator Abrasive Blasting Units

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Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.3.1 Particulate Matter [326 IAC 6-3-2]

Compliance Determination Requirements

- D.3.2 Particulate Matter

Certification Form 28

Emergency Occurrence Form 29

Quarterly Report Form 31

Quarterly Deviation and Compliance Monitoring Report Form 32

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary metal stamping operation including electroplating, surface coating, and heat treating of metal parts.

Authorized individual:	Clay E. Jackson, Plant Manager
Source Address:	800 West County Road 250 South, Logansport, Indiana 46947
Mailing Address:	P.O. Box 660, Logansport, Indiana 46947-0660
SIC Code:	3469, 3471, 3479, 3398, 3714, 3499
County Location:	Cass
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) one (1) metal part surface coating operation, identified as EU-1, consisting of three (3) metal part dip spin surface coating lines, identified as Lines No. 1, No. 2, and No. 3, constructed in 1989, 1989, and 1985, respectively, using three (3) dip tanks, each coating a maximum of 6000 pounds of metal parts per hour, each exhausting through one (1) stack, identified as S1A-D, S2A-D, and S3A-D.
- (b) Three (3) wheelabrator abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, each with a maximum capacity of processing 2100 pounds per hour, equipped with a common dust collector with a 99% control efficiency, and a design outlet grain loading of 0.03 grains per actual standard cubic feet, with a maximum air flow rate of 4500 actual cubic feet per minute.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
 - (1) one (1) pre-cure oven on coating Line No. 1, with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour;
 - (2) one (1) cure oven on coating Line No. 1, with a maximum heat input capacity of 3.0 MMBtu per hour;
 - (3) one (1) pre-cure oven on coating Line No. 2, with a maximum heat input capacity of

- 2.0 MMBtu per hour;
- (4) one (1) cure oven on coating Line No. 2, with a maximum heat input capacity of 3.0 MMBtu per hour;
- (5) one (1) precure oven on coating Line No. 3, with a maximum heat input capacity of 0.5 million British thermal units (MMBtu) per hour;
- (6) one (1) cure oven on coating Line No. 3, with a maximum heat input capacity of 2.0 MMBtu per hour; and
- (7) twelve (12) tube burners for the heat treat furnace, each with a maximum heat

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- (t) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (u) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower.
- (v) Emergency generators as follows: Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.
- (w) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than 4,000 actual cubic feet per minute (acfm), including the following:
 - (1) one (1) tool grinding operation, identified as EU2, with a maximum process weight rate of 43.2 pounds per hour, with particulate matter emissions controlled by two (2) filter dust collectors, whose exhausts are recirculated back into the grinding room, resulting in negligible potential or actual emissions to the atmosphere.
- (x) A laboratory as defined in 326 IAC 2-7-1(21)(C).
- (y) Farm operations.
- (z) Other categories with emissions below insignificant thresholds:
 - (1) one (1) plastic automotive latch coating line, identified as EU4, including:
 - (A) one (1) water based coating HVLP surface coating spray booth, with PM(PM10) overspray emissions controlled by a dry filter system, with emissions exhausted through stack S6;
 - (B) one (1) ancillary chain-on-edge parts conveyor; and
 - (C) one (1) 0.4 MMBtu per hour natural gas fired curing oven, with emissions exhausted through stack S7.
 - (2) one (1) zinc electroplating process, emitting less than 5 pounds per day of hydrochloric acid gas emissions from metal cleaning operation.
 - (3) one (1) natural gas-fired heat treat/carburizing furnace, identified as EU3, using methanol to produce a carbon monoxide and hydrogen rich atmosphere, equipped with twelve (12) natural-gas fired tube burners, each with a maximum heat input capacity of 0.6 MMBtu per hour, and one (1) integrally designed open flame exit burner, which combusts carbon monoxide with a 98% control efficiency, emitting less than 25 pounds per day of carbon monoxide.
 - (4) Two (2) vinyl dip coating units, identified as EU-7a and EU-7b, using water based primer and plastisol coatings, with a maximum throughput capacity of 3000 units

per hour, equipped with one (1) natural gas-fired dryer, rated at 1 mmBtu per hour, and one (1) natural gas-fired infrared heater, rated at 0.5 mmBTu per hour.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

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SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including:
 - (1) one (1) Safety Kleen sink for parts washing.
- (b) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than 4,000 actual cubic feet per minute (acfm), including the following:
 - (1) one (1) tool grinding operation, identified as EU2, with a maximum process weight rate of 43.2 pounds per hour, with particulate matter emissions controlled by two (2) filter dust collectors, whose exhausts are recirculated back into the grinding room, resulting in negligible potential or actual emissions to the atmosphere.
- (c) Other categories with emissions below insignificant thresholds:
 - (1) one (1) plastic automotive latch coating line, identified as EU4, including:
 - (A) one (1) water based coating HVLP surface coating spray booth, with PM(PM10) overspray emissions controlled by a dry filter system, with emissions exhausted through stack S6;
 - (B) one (1) ancillary chain-on-edge parts conveyor; and
 - (C) one (1) 0.4 MMBtu per hour natural gas fired curing oven, with emissions exhausted through stack S7.
 - (2) one (1) natural gas-fired heat treat/carburizing furnace, identified as EU3, using methanol to produce a carbon monoxide and hydrogen rich atmosphere, equipped with twelve (12) natural-gas fired tube burners, each with a maximum heat input capacity of 0.6 MMBtu per hour, and one (1) integrally designed open flame exit burner, which combusts carbon monoxide with a 98% control efficiency, emitting less than 25 pounds per day of carbon monoxide.
 - (3) Two (2) vinyl dip coating units, identified as EU-7a and EU-7b, using water based primer and plastisol coatings, with a maximum throughput capacity of 3000 units per hour, equipped with one (1) natural gas-fired dryer, rated at 1 mmBtu per hour, and one (1) natural gas-fired infrared heater, rated at 0.5 mmBTu per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Degreasing Operations

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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Vinyl Dip Coating Units

D.2.2 Volatile Organic Compounds (VOC)

The vinyl dip coating lines are not subject to 326 IAC 8-2-11 (Surface Coating Emission Limitations: Fabric and Vinyl Coating). Any change or modification that increases the actual VOC emissions from the vinyl coating lines EU-7a and EU-7b to 15 pounds per day, shall require approval from IDEM, OAQ, prior to making the change.

Process Weight Activities

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.3 Particulate [326 IAC 6-3-2][40 CFR 52, Subpart P]

- (a) Pursuant to 40 CFR 52, Subpart P, the allowable PM emission rate from the plastic automotive latch coating line, identified as EU4, shall not exceed the allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the tool grinding operation, identified as EU2, shall be limited to 0.31 pounds per hour, based on a process weight rate of 43.2 pounds per hour and the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Compliance Determination Requirement

D.2.4 Particulate Matter (PM)

- (a) Pursuant to Exemption No. 017-10857-00027, issued on May 18, 1999, and in order to comply with D.2.2(a), the dry filters for PM control shall be in operation and control emissions from the plastic automotive latch coating line at all times that the plastic automotive latch coating line is in operation.
- (b) In order to comply with D.2.2(b), the two (2) filter dust collectors for PM control shall be in operation and control emissions from the tool grinding operation at all times that the tool grinding operation is in operation.

D.2.5 Carbon Monoxide (CO)

The one (1) open flame exit burner for CO control shall be in operation and control emissions from the heat treat/carburizing furnace (EU3) at all times that the furnace is in operation.

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Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.6 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain a daily record of the amount and VOC content of each coating material used for the vinyl coating lines EU-7a and EU-7b.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Three (3) wheelabrator abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, each with a maximum capacity of processing 2100 pounds per hour, equipped with a common dust collector with a 99% control efficiency, and a design outlet grain loading of 0.03 grains per actual standard cubic feet, with a maximum air flow rate of 4500 actual cubic feet per minute.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from each of the three (3) abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, shall be limited to 4.24 pounds per hour, based on a process weight rate of 2100 pounds per hour and the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Compliance with this limit also makes 326 IAC 2-7 (Part 70 Operating Permit Program) not applicable, by limiting the source-wide particulate emissions to less than 100 tons per year.

Compliance Determination Requirement

D.3.2 Particulate Matter (PM)

- (a) In order to comply with D.3.1, the common dust collector for PM control from units EU-6a, EU-6b, and EU-6c, shall be in operation and control emissions from the abrasive tumble blasting operation at all times that any of the three (3) tumble blasters is in operation.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Textron Fastening Systems, PSD Operations
Source Location:	800 West County Road 250 South, Logansport, Indiana 46947
County:	Cass
SIC Code:	3469
Operation Permit No.:	F 017-11464-00027
Operation Permit Issuance Date:	September 4, 2002
Minor Permit Revision No.:	017-16162
Permit Reviewer:	Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed a Minor Permit Revision application from Textron Fastening Systems, PSD Operations, relating to the operation of a stationary metal stamping facility including electroplating, surface coating, and heat treating of metal parts.

History

Textron Fastening Systems was issued a FESOP on September 9, 2002. On September 26, 2002, Textron Fastening Systems submitted an application to the OAQ requesting to add two (2) vinyl coating lines and three (3) abrasive blasting units equipped with a common dust collector.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

- (a) Three (3) wheelabrator abrasive tumble blasting units, identified as EU-6a, 6b, and 6c, each with a maximum capacity of processing 2100 pounds per hour, equipped with a common dust collector with a 99% control efficiency, and a design outlet grain loading of 0.03 grains per actual standard cubic feet, with a maximum air flow rate of 4500 actual cubic feet per minute.

The source also requested the addition of the following insignificant emission units:

- (b) Two (2) vinyl dip coating units, identified as EU-7a and 7b, using water based primer and plastisol coatings, with a maximum throughput capacity of 3000 units per hour, equipped with one (1) natural gas-fired dryer, rated at 1 mmBtu per hour, and one (1) natural gas-fired infrared heater, rated at 0.5 mmBTu per hour.

Existing Approvals

The source was issued FESOP No. 017-11464-00027 on September 9, 2002.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the dust collector for the three (3) abrasive blasting units be considered as an integral part of the blasting process:

- (a) Exhaust from the abrasive blasting units will be routed to the dust collector unit at all times that the abrasive blasting units are in use.

IDEM, OAQ has evaluated the justifications and determined that the dust collector will not be considered as an integral part of the abrasive blasting process. The reason for this evaluation is as follows:

- (a) The dust collector can be disconnected from the abrasive blasting units.
- (b) The exhaust from the dust collector is not recirculated back into the blasting units.

Therefore, the permitting level will be determined using the potential to emit before the dust collector.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
DC-3	Abrasive Blasting Dust Collector	12	Rectangular	4500	Ambient
S-8	Vinyl Dip Coating	24	1.0	2000	Ambient

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 26, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations from the two (2) vinyl dip

coating units.

Tumble Blasting:

Particulate matter collected in common dust collector (for a process rate of 1600 lb/hr in each tumble blaster) = 28.7 lb per hour

Assuming dust collector efficiency of 98% (minimum), emission (from 3 units) = $28.7/0.98 = 29.2$ lb/hr. Therefore, for a total processing rate of 4800 pounds per hour, emission = 29.2 lb/hr

For max. processing rate of 6300 pounds per hour, potential to emit = $29.2 \times 6300/4800 = 38.3$ lb/hr = 167.7 tons per year.

Total Unrestricted Potential to Emit of Unpermitted Emission Units:

Pollutant	Potential to Emit (tons/yr)
PM	175.5
PM-10	175.5
SO ₂	Negligible
NO _x	Negligible
VOC	1.70
CO	Negligible
HAPs	Negligible

Justification for Modification

The FESOP is being modified through a Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(d)(5)(C), which states that a minor permit revision can be used for “modifications for which the potential to emit is limited to less than twenty-five (25) tons per year of any regulated pollutant” by complying with the following constraints: “Using a particulate air pollution control device as follows: (i) Achieving and maintaining ninety-nine (99%) efficiency. (ii) Complying with a no visible emission standard. (iii) The potential to emit before air pollution controls does not exceed major source thresholds for federal permitting programs. (iv) Certifying to the commissioner that the air pollution control device supplier guarantees that a specific outlet concentration, in conjunction with design air flow, will result in actual emissions less than twenty-five (25) tons of particulate matter (PM) or fifteen (15) tons per year or less of particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10)”. The source has agreed to limit the PM and PM-10 emissions by operating a dust collector at all times that the abrasive blasting unit is in operation.

Potential To Emit of Entire Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year) ¹
PM	177.83
PM-10	178.33
SO ₂	0.05

VOC	114.38
CO	11.52
NO _x	8.80

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Glycol Ether (worst)	65.36
TOTAL	95.30

¹ Including the potential to emit of permitted emission units at the source based on the Technical Support Document for FESOP No. 017-11464-00027.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC and PM-10 are each equal to or greater than 100 tons per year. The source, which is otherwise subject to the provisions of 326 IAC 2-7, has applied to remain a FESOP source and agreed to limit the VOC and PM-10 emissions to less than 100 tons per year.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. The source, which is otherwise subject to the provisions of 326 IAC 2-7, has agreed to limit the source-wide HAP emissions to less than 10 tons per year for a single HAP, and 25 tons per year for a combination of HAPs.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment for the three (3) tumble blasting units is considered federally enforceable only after issuance of this Minor Permit Revision to the Federally Enforceable State Operating Permit No. 017-11464-00027.

Process/facility	Potential to Emit** (tons/year)							
	PM*	PM-10*	SO ₂	VOC	CO	NO _x	Single HAP	Total HAPs
Metal Parts Surface Coating Lines 1, 2, and 3 ⁽¹⁾	0.0	0.0	0.0	< 25.0	0.0	0.0	< 9.5 (Glycol Ether)	< 23.43
Vinyl Dip Coating (EU-7a and EU-7b)	7.8	7.8	0.0	1.7	0.0	0.0	Negligible	Negligible
Tumble Blasting (EU-6a, EU-6b, EU-6c)	1.68	1.68	0.0	0.0	0.0	0.0	Negligible	Negligible
Natural Gas Combustion*	0.17	0.67	0.05	0.48	7.40	8.80	0.16 (Hexane)	0.17

Zinc Electroplating*	0.0	0.0	0.0	0.90	0.0	0.0	0.90 (HCl)	0.90
Automotive Latch Coating Line & Tool Grinding*	2.16	2.16	0.0	0.68	0.0	0.0	0.50 (Glycol Ether)	0.50
Heat Treat Furnace*	0.0	0.0	0.0	0.0	4.12	0.0	0.0	0.0
Total Emissions	<100	<100	0.05	< 28.76	11.52	8.80	< 10.0	< 25.0

* The source-wide PM and PM-10 emissions are limited to less than 100 tons per year.

** The limited emissions of pollutants (other than PM and PM-10) are derived from FESOP No. 017-11464-00027.

County Attainment Status

The source is located in Cass County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Cass County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to the two (2) vinyl dip coating units and three (3) tumble blasting operations.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to the two (2) vinyl dip coating units and three (3) tumble blasting operations.

There is no federal rule applicable to any of the permitted emission units at the facility as determined in the Technical Support Document for FESOP No. 017-11464-00027.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source is not subject to the requirements of this rule because the potential to emit of all regulated criteria pollutants is less than 250 tons per year and it is not one of the 28 listed source categories.

326 IAC 2-8 (FESOP)

The source-wide PM-10 emissions is limited to less than 100 tons of PM10 per year (22.8 lbs/hr). Also, the source-wide VOC and HAP emission limits determined in FESOP No. 017-11464-00027 remains at less than 100 tons per year (for VOCs), and 10/25 tons per year (for single/comboination HAPs). The dust collector for the three (3) abrasive tumble blasting units is

required to be in operation at all times any of the blasters are in operation.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), which would require the source to submit an annual emission statement. Pursuant to this rule, any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. This source, which is located in Cass County, has accepted federally enforceable operation conditions which limit emissions of VOC to below 100 tons per year. In addition, the source has accepted federally enforceable operation conditions which limit emissions of PM and PM-10 to below 100 tons per year. The potential to emit of all other criteria pollutants is also less than 100 tons per year, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from each of the three (3) abrasive blasting units shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

For a maximum process weight rate of 2100 pounds per year, the rate of emission of PM from each of the abrasive blasters is limited to 4.24 pounds per hour, or 18.6 tons per year.

The common dust collector shall be in operation at all times that any of the tumble blasting units is in operation, in order to comply with this limit. This will also limit the PM-10 emissions to less than 100 tons per year.

326 IAC 8-2-11 Surface Coating Emission Limitations: Fabric and Vinyl Coating

The vinyl dip coating operation at the source, constructed after 1990, has actual emissions of VOCs of less than 15 pounds per day, which is below the applicability threshold for 326 IAC 8-2-11, as stated in 326 IAC 8-2-1. Therefore, the two (2) vinyl dip coating units at the source are not subject to 326 IAC 8-2-11. To demonstrate compliance, the Permittee shall maintain a daily record of the amount and VOC content of each coating material used for the vinyl coating lines EU-7a and EU-7b.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no applicable compliance monitoring requirements for the vinyl dip coating and abrasive tumble blasting units.

Conclusion

The operation of the two (2) vinyl dip coating units and three (3) abrasive tumble blasting units shall be subject to the conditions of the attached proposed FESOP Minor Permit Revision No.: 017-16162-00027.

CHANGES TO FESOP

(1) Section A.2 is modified as follows (~~strikeout~~ to show deletions and **bold** to show additions):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) one (1) metal part surface coating operation, identified as EU-1, consisting of three (3) metal part dip spin surface coating lines, identified as Lines No. 1, No. 2, and No. 3, constructed in 1989, 1989, and 1985, respectively, using three (3) dip tanks, each coating a maximum of 6000 pounds of metal parts per hour, each exhausting through one (1) stack, identified as S1A-D, S2A-D, and S3A-D.
- (b) **Three (3) wheelabrator abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, each with a maximum capacity of processing 2100 pounds per hour, equipped with a common dust collector with a 99% control efficiency, and a design outlet grain loading of 0.03 grains per actual standard cubic feet, with a maximum air flow rate of 4500 actual cubic feet per minute.**

(2) Section A.3 is modified as follows:

- (z) Other categories with emissions below insignificant thresholds:

- (1) one (1) plastic automotive latch coating line, identified as EU4, including:

- (A) one (1) water based coating HVLP surface coating spray booth, with PM(PM10) overspray emissions controlled by a dry filter system, with emissions exhausted through stack S6;
 - (B) one (1) ancillary chain-on-edge parts conveyor; and
 - (C) one (1) 0.4 MMBtu per hour natural gas fired curing oven, with emissions exhausted through stack S7.
- (2) one (1) zinc electroplating process, emitting less than 5 pounds per day of hydrochloric acid gas emissions from metal cleaning operation.
- (3) one (1) natural gas-fired heat treat/carburizing furnace, identified as EU3, using methanol to produce a carbon monoxide and hydrogen rich atmosphere, equipped with twelve (12) natural-gas fired tube burners, each with a maximum heat input capacity of 0.6 MMBtu per hour, and one (1) integrally designed open flame exit burner, which combusts carbon monoxide with a 98% control efficiency, emitting less than 25 pounds per day of carbon monoxide.
- (4) Two (2) vinyl dip coating units, identified as EU-7a and EU-7b, using water based primer and plastisol coatings, with a maximum throughput capacity of 3000 units per hour, equipped with one (1) natural gas-fired dryer, rated at 1 mmBtu per hour, and one (1) natural gas-fired infrared heater, rated at 0.5 mmBTu per hour.**

(3) Section D.2 (Facility Description) is modified as follows:

- (z c) Other categories with emissions below insignificant thresholds:
- (1) one (1) plastic automotive latch coating line, identified as EU4, including:
- (A) one (1) water based coating HVLP surface coating spray booth, with PM(PM10) overspray emissions controlled by a dry filter system, with emissions exhausted through stack S6;
 - (B) one (1) ancillary chain-on-edge parts conveyor; and
 - (C) one (1) 0.4 MMBtu per hour natural gas fired curing oven, with emissions exhausted through stack S7.
- (3 2) one (1) natural gas-fired heat treat/carburizing furnace, identified as EU3, using methanol to produce a carbon monoxide and hydrogen rich atmosphere, equipped with twelve (12) natural-gas fired tube burners, each with a maximum heat input capacity of 0.6 MMBtu per hour, and one (1) integrally designed open flame exit burner, which combusts carbon monoxide with a 98% control efficiency, emitting less than 25 pounds per day of carbon monoxide.
- (3) Two (2) vinyl dip coating units, identified as EU-7a and EU-7b, using water based primer and plastisol coatings, with a maximum throughput capacity of 3000 units per hour, equipped with one (1) natural gas-fired dryer, rated at 1 mmBtu per hour, and one (1) natural gas-fired infrared heater, rated at 0.5 mmBTu per hour.**

(4) Subsection D.2.2 is added as follows:

Vinyl Dip Coating Units
D.2.2 Volatile Organic Compounds (VOC)

The vinyl dip coating lines are not subject to 326 IAC 8-2-11(Surface Coating Emission

Limitations: Fabric and Vinyl Coating). Any change or modification that increases the actual VOC emissions from the vinyl coating lines EU-7a and EU-7b to 15 pounds per day, shall require approval from IDEM, OAQ, prior to making the change.

(5) To document compliance with Condition D.2.2, the following record-keeping requirement is added.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.6 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain a daily record of the amount and VOC content of each coating material used for the vinyl coating lines EU-7a and EU-7b.

(6) The remaining subsections in D.2 are re-numbered due to the addition of the new D.2.2. Also, the Table of contents is re-numbered accordingly.

(7) Section D.3 is added for the three (3) abrasive tumble blasting units.

SECTION D.3 FACILITY OPERATION CONDITIONS
Facility Description [326 IAC 2-8-4(10)]:

Three (3) wheelabrator abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, each with a maximum capacity of processing 2100 pounds per hour, equipped with a common dust collector with a 99% control efficiency, and a design outlet grain loading of 0.03 grains per actual standard cubic feet, with a maximum air flow rate of 4500 actual cubic feet per minute.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from each of the three (3) abrasive tumble blasting units, identified as EU-6a, EU-6b, and EU-6c, shall be limited to 4.24 pounds per hour, based on a process weight rate of 2100 pounds per hour and the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Compliance with this limit also makes 326 IAC 2-7 (Part 70 Operating Permit Program) not applicable, by limiting the source-wide particulate emissions to less than 100 tons per year.

Compliance Determination Requirement

D.3.2 Particulate Matter (PM)

- (a) In order to comply with D.3.1, the common dust collector for PM control from units EU-6a, EU-6b, and EU-6c, shall be in operation and control emissions from the abrasive tumble blasting operation at all times that any of the three (3)

tumble blasters is in operation.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: Textron Fastening Systems-PSD Operations
Address City IN Zip: 800 West County Road 250 South, Logansport, IN 46947
CP: 017-16162
Plt ID: 017-00027
Reviewer: Madhurima D. Moulik
Date: October 22, 2002**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
EU-7a Primer	9.3	56.00%	55.0%	1.0%	61.0%	38.00%	0.00013	1000.000	0.24	0.09	0.01	0.29	0.05	0.58	0.24	75%
Plastisol	9.8	53.00%	50.0%	3.0%	59.0%	38.00%	0.00040	1000.000	0.72	0.29	0.12	2.82	0.52	2.02	0.77	75%
EU-7b Primer	9.3	56.00%	55.0%	1.0%	61.0%	38.00%	0.00013	2000.000	0.24	0.09	0.02	0.58	0.11	1.16	0.24	75%
Plastisol	9.8	53.00%	50.0%	3.0%	59.0%	38.00%	0.00040	2000.000	0.72	0.29	0.24	5.64	1.03	4.03	0.77	75%

State Potential Emissions	Add worst case coating to all solvents	0.39	9.34	1.70	7.80
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METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

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